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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/636,159

08/06/2003

Masataka Katoh

KUSUMOTO 221-KFM

3603

7590

11/16/2004

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EXAMINER

VU, PHU

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/636,159	KATOH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Phu Vu	2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the connections of the components as described in the specification. Further, the way the components are illustrated, as rectangular boxes, does not show what is connected to what within the pixels or between pixels, and makes the drawings difficult to understand. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph**, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are the connections between the claimed elements. Further, a “pixel” is not a physical thing, but a region defined either by the pixel electrode or some vaguely defined midway point between pixel electrodes. An aperture has to be in something, so an aperture in a pixel really does not specifically mean anything or define any structure. A capacitor typically not transparent, and is therefore by definition not part of the aperture, so what does it mean to have a capacitor next to an aperture?

**Claim 2 is rejected under 35 U.S.C. 112, second paragraph**, as being indefinite in that it fails to point out what is included or excluded by the claim

**language.** This claim is an omnibus type claim. The phrase "the IPS LCD according to the present invention" is indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Matsuura et. al US Patent No 6,778,233.**

**Regarding claim 1,** Matsuura teaches a liquid crystal display having pixels arranged in rows and columns on a substrate, an aperture formed in the pixel having liquid crystal and strip-like electrodes.

a capacitor storage circuit (figure 1 element 32) adjacent to the aperture and a pad (figure 1 element 26), and wherein a cut (figure 1 element 50) is formed in a side of the CS circuit to which the aperture is adjacent .

**Regarding claim 2,** Matsuura also teaches a laser cut is formed in a position through which a laser beam is applied to the strip like electrode.

**Regarding claim 3,** Matsuura teaches a liquid crystal display having pixels arranged in rows and columns on a substrate, an aperture formed in the pixel having

liquid crystal and strip-like electrodes and a capacitor storage circuit (figure 1 element 32) adjacent to the aperture and a pad (figure 1 element 26), and wherein a cut is formed in a side of the CS circuit to which the aperture is adjacent.

**Regarding claim 4,** Matsuura teaches . A method of changing a bright pixel to a dark pixel in an IPS LCD comprising a substrate, a plurality of pixels arranged in rows and columns (see figure 1) on the substrate, an aperture formed in the pixel and having liquid crystal and strip-like electrodes therein, a CS (figure 1 element 32) circuit adjacent to the aperture, and a pad (figure 1 element 26) opposed to the CS circuit and connected to the strip-like electrodes, comprising the step of cutting the strip-like electrode of only a bright pixel among the plurality of pixels at the end of the aperture by laser beam (see abstract).

**Regarding claim 5,** Matsuura teaches method of changing a bright pixel to a dark pixel in an display comprising a substrate (column 1 lines 11-15), a plurality of pixels arranged in rows and columns on the substrate (see figure 1), an aperture formed in the pixel and having liquid crystal and strip-like electrodes therein (see figure 1), a CS circuit adjacent to the aperture (figure 1 element 32), and a pad opposed to the CS circuit and connected to the strip-like electrodes, comprising the steps of: forming a cut (figure 1 element 50) in a side of the CS circuit to which the aperture is adjacent; and applying laser beam to the strip-like electrode of only a bright pixel among the plurality of pixels through the cut so as to cut the strip-like electrode (see abstract).

**Regarding claim 6,** Matsuura teaches method of changing a bright pixel to a dark pixel in an display comprising a substrate (column 1 lines 11-15), a plurality of pixels

arranged in rows and columns on the substrate (see figure 1), an aperture formed in the pixel and having liquid crystal and strip-like electrodes therein (see figure 1), a CS circuit adjacent to the aperture (figure 1 element 32), and a pad opposed to the CS circuit and connected to the strip-like electrodes, comprising the steps of: forming a cut (figure 1 element 50) in a side of the CS circuit to which the aperture is adjacent; forming a window (element 50) in a part of the CS circuit that corresponds to the location of the strip-like electrode; and applying laser beam to the strip-like electrode of only a bright pixel among the plurality of pixels through the window so as to cut the strip-like electrode.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Kawachi US Patent 5623350.

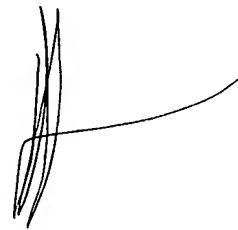
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562.

The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu  
Examiner  
AU 2871



**KENNETH PARKER**  
PRIMARY EX